



MONOCLONAL ANTIBODY

For research use only. Not for clinical diagnosis

Catalog No. CEC-008

Anti- Histone H3.3 [Clone : 4H2D7]

BACKGROUND

Nucleosomes are composed of four different histone proteins, designated H3, H4, H2A, and H2B. Histone H3 has two main variants, H3.1 and H3.3, which show different genomic localization patterns in eukaryotes. Deposition of Histone H3.1 is coupled to DNA synthesis during DNA replication and possibly DNA repair.

| | |
|------------------|--|
| Product type | Primary antibody |
| Immunogen | Synthetic peptide corresponding to N-terminus region (aa 21-39) of human Histone H3.3, ATKAAR(acK)SAPSTGGVKKPH |
| Host | Rat |
| Clone number | 4H2D7 |
| Isotype | IgG2a, κ |
| Source | Culture supernatant |
| Purification | Ion-exchange chromatography |
| Form | Liquid |
| Presentation | Purified monoclonal antibody in PBS, 50% Glycerol, 0.05%w/v ProClin300 |
| Concentration | 1 mg/mL |
| Volume | 50 μ L |
| Label | Unlabeled |
| Specificity | Histone H3.3, Epitope : Histone H3.3 (21-39) * Human(HeLa), monkey(COS1), mouse(NIH3T3) |
| Cross reactivity | Human, Monkey, Mouse, Rat, Hamster Other species have not been tested. |
| Storage | Store below -20°C (below -70°C for prolonged storage) Aliquot to avoid cycles of freeze/thaw. |
| Other | Data Link: UniProtKB/Swiss-Prot P84243 |

Application notes

Recommended use

WB, ICC, IHC, ChIP, IP Not tested for other applications.

Recommended dilutions

Western blotting, 1/1,000 to 1/5,000

Immunocytochemistry, 1/50 to 1/100

Immunohistochemistry, 1/50 to 1/100

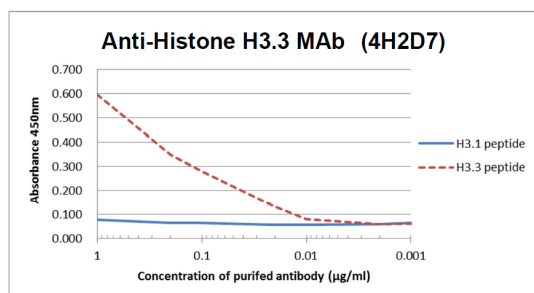
Optimal dilutions/concentrations should be determined by the end user.

References

- 1) Hake SB, *et al.*, Proc Natl Acad Sci U S A. 2006 Apr 25;103(17):6428-35. PMID: [16571659](#)
- 2) Harada, *et al.*, EMBO J. 2012 Jun 29;31(13):2994-3007. PMID: [22569126](#)

* This antibody is used in ref.2.

ANTIBODY CHARACTERIZATION



H3.1 peptide 21 ATKAARKSAP**A**TGGVKKPH 39
H3.3 peptide 21 ATKAARKSAP**S**TGGVKKPH 39

Fig.1 The composition of Histone H3 variants peptides and the reactivity using Histone H3.3 antibody, 4H2D7.

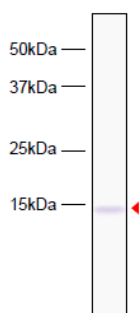


Fig.2 Western blot analysis of HeLa cell extracts using Histone H3.3 antibody, 4H2D7.

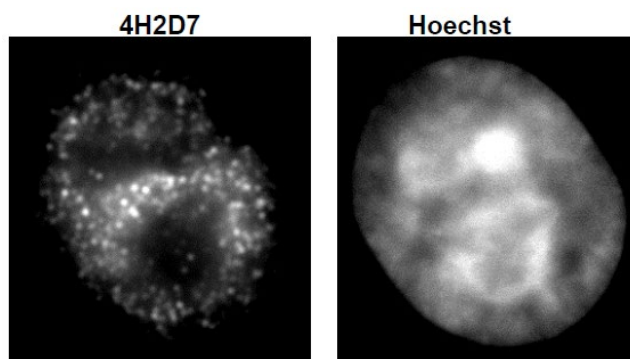


Fig.3 Immunocytochemical analysis of HeLa Cell using Histone H3.3 antibody, 4H2D7.

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